

(b) a distal portion of the interlocking weave being expandable from a first generally cylindrical shape to a second expanded shape; and

E1 (c) a plurality of electrodes on the distal portion of the insulated wires, each electrode in electrical communication with a single wire, and with each wire being in electrical communication with no more than a single electrode.

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E2 19. (amended) The endocardial mapping catheter assembly of claim 18, further comprising

d) an electrical plug on the proximal end of the interlocking weave, the electrical plug having a plurality of connections, each in electrical communication through one of the insulated wires to one of the electrodes.

20. (amended) The endocardial mapping catheter assembly of claim 18, [further comprising] wherein the interlocking weave further comprises a proximal non-expanding portion having a generally cylindrical shape.

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10 27. (amended) An endocardial mapping catheter assembly comprising

(a) an elongated flexible lead body having an interior lumen and proximal and distal ends;

(b) at least twenty-four insulated wires in the lumen extending from the proximal to the distal end of the lead body, the wires collectively being braided together to form [forming] a wire assembly;

E3 (c) an expandable portion of the wire assembly near the distal end of the flexible lead body, the expandable portion being expandable from a first generally cylindrical shape to a second expanded shape;

(d) the majority of wires in the wire assembly each having a single electrode in the expandable portion of the wire assembly;

(e) an electrical plug on the proximal end of the flexible lead body, the electrical plug having a plurality of connections, each connection being in electrical communication with one of the wires.

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30. (amended) An endocardial mapping catheter assembly comprising:

(a) a plurality of insulated wires surrounded by an insulating material,

E4 (b) a braid comprised of a combination of the insulated wires in an interlocking weave,

(c) a flexible material surrounding a first portion of the braid, forming a flexible lead body, the flexible material not surrounding a second portion of the braid,